AMENDMENT TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (cancelled)
2. (cancelled)
3. (cancelled)
4. (cancelled)
5. (cancelled)
6. (cancelled)
7. (cancelled)
8. (cancelled)
9. (cancelled)
10. (cancelled)
11. (cancelled)
12. (cancelled)
13. (cancelled)
14. (cancelled)
15. (cancelled)
16. (cancelled)
17. (cancelled)
18. (cancelled)
19. (cancelled)

20. (cancelled)

21. (cancelled)

22. (cancelled)

23. (cancelled)

24. (cancelled)

25. (cancelled)

26. (cancelled)

27. (cancelled)

28. (cancelled)

29. (cancelled)

30. (currently amended) A CO_2 slab laser having a gas-filled chamber defined by a tubular housing, with at least two electrodes that extend axially into the tubular housing, said electrodes axially overlapping one another and forming a discharge chamber, and resonator mirrors provided within said housing, characterized in that

said electrodes are each supported at the opposite ends of said tubular housing,

each of said mirrors is supported in stationary relationship on one of said electrodes and

said electrodes with said mirrors thereon are adjustable relative to each other.

31. (currently amended) A CO_2 slab laser having a gas-filled chamber defined by a tubular housing, with at least two electrodes that extend axially into the tubular

housing, said electrodes axially overlapping one another and forming a discharge chamber, and resonator mirrors provided within said housing, characterized in that

said electrodes are each supported at the opposite ends of said tubular housing,

said mirrors are designed in one piece with said electrodes and

said electrodes with said mirrors attached are adjustable relative to each other.

32. (currently amended) A CO_2 slab laser having a gas-filled chamber defined by a tubular housing, with at least two electrodes that extend axially into the tubular housing, said electrodes axially overlapping one another and forming a discharge chamber, and resonator mirrors provided within said housing, characterized in that

each of said electrodes is separately held on a different one of end pieces at the opposite ends of said tubular housing,

each of said mirrors ~~are~~ is supported in stationary relationship on one of said electrodes and

said electrodes with said mirrors thereon are adjustable relative to each other by adjusting elements.

33. (previously presented) A CO_2 slab laser according to Claim 32, characterized in that each of said electrodes is designed in one piece with one of said end pieces.

34. (previously presented) A CO_2 slab laser according to claim 33 with at least one of said end pieces attached to the tubular housing with said adjusting elements by way of a flexible bearing.

35. (previously presented) A CO_2 slab laser according to Claim 34, characterized in that the flexible bearing is a bellows.

36. (previously presented) A CO_2 slab laser according to Claim 32, characterized in that said adjusting elements contain piezoelectric crystals which are capable of being driven electrically.

37. (previously presented) A CO_2 slab laser having a gas-filled chamber defined by a tubular housing as set forth in Claim 31, characterized in that said electrodes are held in said tubular housing by end pieces sealing off the tubular housing.

38. (previously presented) A CO_2 slab laser according to Claim 32, characterized in that said mirrors are designed in one piece with said end pieces forming a part of said housing.

39. (previously presented) A CO_2 slab laser according to Claim 31, characterized in that said mirrors are designed in one piece with end pieces on said housing.

40. (previously presented) A CO_2 slab laser according to Claim 30, characterized in that the tubular housing is designed in two parts, said two parts being interconnected and adjustable relative to one another.

41. (previously presented) A CO_2 slab laser according to Claim 31, characterized in that the tubular housing is designed in two parts, said two parts being interconnected and adjustable relative to one another.

42. (previously presented) A CO_2 slab laser according to Claim 32, characterized in that the tubular housing is designed in two parts, said two parts being interconnected and adjustable relative to one another by said adjusting elements.

43. (previously presented) A CO_2 slab laser according to Claim 33 characterized in that the tubular housing is designed in two parts, said two parts being interconnected and adjustable relative to one another by said adjusting elements.

44. (previously presented) A CO_2 slab laser according to Claim 37, characterized in that the tubular housing is designed in two parts, said two parts being interconnected and adjustable relative to one another.

45. (previously presented) A CO_2 slab laser according to Claim 38, characterized in that the tubular housing is designed in two parts, said two parts being interconnected and adjustable relative to one another by said adjusting elements.

46. (previously presented) A CO_2 slab laser according to Claim 39, characterized in that the tubular housing is designed in two parts, said two parts being interconnected and adjustable relative to one another.

47. (previously presented) A CO_2 slab laser according to Claim 32, characterized in that at least one of the end pieces defining said housing is attached to the tubular housing by way of a flexible bearing.

48. (previously presented) A CO_2 slab laser according to Claim 32, characterized in that at least one of the end pieces is attached to the tubular housing with said adjusting elements by way of a flexible bearing.

49. (cancelled)

50. (previously presented) A CO_2 slab laser according to Claim 30, characterized by adjusting elements that are supported on the tubular housing and act on said electrodes for positional adjustment of said electrodes.

51. (previously presented) A CO_2 slab laser according to Claim 30, characterized in that the tubular housing is designed cylindrical and said electrodes in section form a circular segment whose radius is smaller than the inside radius of the tubular housing.

52. (previously presented) A CO_2 slab laser according to Claim 30, characterized in that said electrodes with said mirrors attached are fixed relative to one another after adjustment.

53. (currently amended) A CO_2 slab laser having a gas-filled chamber defined by a tubular housing, with at least two electrodes that extend axially into the tubular housing, said electrodes axially overlapping one another and forming a discharge chamber, and resonator mirrors provided within said housing, characterized in that

said electrodes are ~~each~~ separately supported at the opposite ends of said tubular housing,

each of said mirrors is supported in stationary relationship on one of said electrodes, ~~and~~

said electrodes with said mirrors thereon are adjustable relative to each other, and

cooling means for cooling said electrodes with flow starting at the ends of said electrodes at the opposite ends of said tubular housing.

54.(currently amended) A CO_2 slab laser having a gas-filled chamber defined by a tubular housing, with at least two electrodes that extend axially into the tubular housing, said electrodes axially overlapping one another and forming a discharge chamber, and resonator mirrors provided within said housing, characterized in that

said electrodes are ~~each~~ separately supported at the opposite ends of said

tubular housing,

said mirrors are designed in one piece with said electrodes, ~~and~~

said electrodes with said mirrors attached are adjustable relative to each other, and

cooling means for cooling said electrodes with flow starting at the ends of said electrodes at the opposite ends of said tubular housing.

55. (currently amended) A CO_2 slab laser having a gas-filled chamber defined by a tubular housing, with at least two electrodes that extend axially into the tubular housing, said electrodes axially overlapping one another and forming a discharge chamber, and resonator mirrors provided within said housing, characterized in that

said electrodes ~~each~~ are separately held on end pieces at the opposite ends of said tubular housing,

each of said mirrors ~~are~~ is supported in stationary relationship on one of said electrodes, ~~and~~

said electrodes with said mirrors thereon are adjustable relative to each other by adjusting elements, and

cooling means for cooling said electrodes through said end pieces with flow starting at the opposite ends of said electrodes at the opposite ends of said tubular housing.

56. (new) A CO_2 slab laser according to Claim 53 with said cooling means including cooling medium bores extending axially through said electrodes.

57. (new) A CO_2 slab laser according to Claim 54 with said cooling means including cooling medium bores extending axially through said electrodes.

58. (new) A CO_2 slab laser according to Claim 55 with said cooling means including cooling medium bores extending axially through said electrodes.

59. (new) A CO_2 slab laser according to Claim 30 with cooling means for cooling said electrodes, said cooling means including cooling medium bores extending axially through said electrodes.

60. (new) A CO_2 slab laser according to Claim 31 with cooling means for cooling said electrodes, said cooling means including cooling medium bores extending axially through said electrodes.

61. (new) A CO_2 slab laser according to Claim 32 with cooling means for cooling said electrodes, said cooling means including cooling medium bores extending axially through said electrodes.